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AGRICULTURAL MARKETING SERVICE

SERVICE AND REGULATORY ANNOUNCEMENTS NO. 123

OFFICIAL UNITED STATES STANDARDS FOR GRADES OF LAMB, YEARLING MUTTON, AND MUTTON CARCASSES

(Title 7, Ch. I, Pt. 53, Sections 53,114-53,118 of the Code of Federal Regulations)

The following is a reprint of the official United States standards for the grades of lamb and mutton carcasses heretofore promulgated by the Secretary of Agriculture under the Agricultural Marketing Act of 1946 (60 Stat. 1087; 7 U.S.C. 1621 et seq.), as amended by Public Law 272, 84th Congress. The standards are reprinted with amendments effective February 11, 1957.

DEVELOPMENT OF THE STANDARDS

The official standards for grades of lamb and mutton carcasses were initially promulgated and made effective on February 16, 1931. The standards were amended in October 1940 (Amendment No. 1 to S.R.A. 123) so as to change the grade designations Medium and Common to Commercial and Utility, respectively. In April 1951, the official standards were again amended (Amendment No. 2 to S.R.A. 123). By this amendment, Prime and Choice grades were combined and designated as Prime. The Good grade was renamed Choice, which also became the highest grade for carcasses of mutton older than yearlings. The top two-thirds of the Commercial grade was designated as Good. The lower one-third of the Commercial grade was combined with the top two-thirds of the Utility grade and designated as Utility, thereby eliminating the Commercial grade name. The lower one-third of the Utility grade was combined with the Cull grade and designated as Cull. This amendment also provided for reflecting the minimum requirements for each grade, specified the grade requirements for varying degrees of maturity, and clarified the method for differentiating between lamb, yearling mutton, and mutton carcasses.

In February 1957, the standards for grades of lamb carcasses were amended (Amendment 3 to S.R.A. 123) by reducing the quality requirements for Prime and Choice grade carcasses from more mature lambs but corresponding reductions in the quality requirements for these grades were not made for carcasses from very young lambs. The quality requirements for the Good grade were increased slightly, particularly for carcasses from very young lambs. Quality requirements for the Prime, Choice, and Good grades of yearling mutton and for the Choice and Good grades of mutton were also modified to coordinate them with the changes made in the standards for lamb carcasses. This amendment also

made provision for all lamb, yearling mutton, and mutton carcasses with quality indications equivalent to the lower limit of the upper third of the Good grade to be graded Choice provided they had a development of conformation equivalent to the mid-point of the Choice grade or better. Practically all references to quantity of external and kidney and pelvic fats were also eliminated by this amendment and other minor changes were made in the phrasing of the standards to clarify them and to facilitate their interpretation. These changes were recommended by an industry-wide committee appointed by the National Wool Growers Association and reflected the results of meetings with various segments of the industry at Salt Lake City, Ft. Worth, Denver, and Washington, D. C.

DIFFERENTIATION BETWEEN LAMB, YEARLING MUTTON, AND MUTTON CARCASSES.

Ovine carcasses are classified as lamb, yearling mutton, or mutton on the basis of differences that occur in the development of their muscular and skeletal systems.

Lamb carcasses always have break joints on their front shanks and generally have narrow rib bones, a relatively narrow, compact forequarter, and a light red color and fine texture of lean. They usually have a considerable amount of red in the ribs and a somewhat smaller amount in the shanks.

Yearling mutton carcasses may have either break joints or "spool" joints on their front shanks and generally have moderately wide rib bones, a slightly wide or "spready" appearance through the forequarter, and a slightly dark red color and slightly coarse texture of lean. They usually have only traces of red in the ribs and shanks.

Mutton carcasses always have "spool" joints on their front shanks and generally have wide rib bones, a wide, "spready" forequarter, and a dark red color and coarse texture of lean. Ribs and shanks usually are devoid of red color.

APPLICATION OF STANDARDS.

Lamb, yearling mutton, and mutton carcasses are graded on a composite evaluation of two general grade factors--conformation and quality. These factors are concerned with the proportions of the various wholesale cuts and the proportions of meat and bone in the carcass and the quality of the lean, respectively.

Conformation is the manner of formation of the carcass with particular reference to the relative development of the muscular and skeletal systems, although it is also influenced, to some extent, by the quantity and distribution of external finish. The conformation of a carcass is evaluated by averaging the conformation of its various component parts, giving consideration not only to the proportion of each cut to the carcass weight but also to the general desirability of the cut as compared with other cuts. Best conformation implies a high proportion of edible meat to bone and a high proportion of the weight of the carcass in the more demanded cuts and is indicated by a compact, blocky, plump, full, well-rounded appearance. Inferior conformation implies a low proportion of edible meat to bone and a low proportion of the weight of the carcass in the more demanded cuts and is indicated by a rangy, angular, thin, sunken appearance. External fat in excess of that normally left on retail cuts is not considered in evaluating conformation.

Quality of the lean flesh is best evaluated from consideration of its color, texture, firmness, and marbling, as observed in a cut surface, in relation to the apparent maturity of the animal from which the carcass was produced. However, in grading carcasses or sides in which direct observation of these characteristics is not possible, the quality of the lean is evaluated indirectly from consideration of its color and firmness, the quantity of certain interior fat deposits, and the firmness of the external fat, all in relation to the apparent evidences of maturity. The interior fat deposits considered in this indirect evaluation of quality, in descending order of their importance, are as follows: (1) The fat intermingled within the lean between the ribs called "feathering", (2) the streaking of fat within and upon the inside flank muscles, and (3) the fat deposited over the inside of the ribs adjacent to the backbone called "overflow fat". Feathering and fat streaking in the inside flank muscles are each given much more consideration than overflow fat. Firmness of external fat which is superior or inferior to that specified as minimum for each grade is used to a limited extent as an indicator of quality.

The standards for each grade of lamb specify two general levels of development of the quality-indicating characteristics described in this section, dependent upon the apparent evidences of maturity attained by the lamb at the time of slaughter. It is not intended, however, that these two maturity groups should cover the entire range of maturity within which lambs are marketed, but rather it is intended that these groups represent the extremes of maturity encountered and that there is an additional group which is intermediate in maturity between the two described whose grade requirements must be determined by interpolation. The standards for each grade of yearling mutton and mutton specify only one general level of development of the quality-indicating characteristics described, and these characteristics apply only to carcasses which are typical in maturity for their class. In order to qualify for a specific grade, yearling mutton or mutton carcasses with evidences of more advanced maturity than typical for their class are required to have a slightly greater development of these characteristics than described. Conversely, such carcasses with evidences of less maturity than typical for their class may qualify for a given grade with a slightly lesser development of these characteristics.

Carcasses qualifying for any particular grade may vary with respect to the relative development of the various characteristics that contribute to their conformation and quality, and there will be carcasses which qualify for a particular grade in which the development of some of these individual grade factors will be typical of other grades. Because it is impractical to describe the nearly limitless numbers of such recognizable combinations of characteristics, the standards for each grade describe only carcasses which have a relatively similar development of individual conformation and quality factors and which are also representative of the lower limit of each grade. However, examples of the extent to which superiority in quality may compensate for deficiencies in conformation, and vice versa, are indicated for each grade.

The standards are intended to apply to all ovine carcasses without regard to the apparent sex condition of the animal at time of slaughter. However, carcasses which have thick, heavy necks and shoulders typical of uncastrated males are discounted in grade

in accord with the extent to which these characteristics are developed. Such discounts may vary from less than half a grade in carcasses from young lambs in which such characteristics are barely noticeable to as much as two full grades in carcasses from mature rams in which such characteristics are very pronounced.

The standards for lamb, yearling mutton, and mutton carcasses contained herein together provide for grading carcasses within the full range of maturity of the ovine species. Although the grade standards for this full range of maturity are contained in three separate standards, it is the intent that the three standards be considered as a continuous series. Therefore, in determining the grade of a carcass which has a degree of maturity that is not typical of that specified in one of the three standards, it is necessary to interpolate between the standard for the kind of carcass (lamb, yearling mutton, or mutton) being graded and the standard for the kind of carcass which is most closely adjacent to it in maturity.

SPECIFICATIONS FOR OFFICIAL UNITED STATES STANDARDS FOR GRADES OF LAMB CARCASSES

PRIME

Carcasses possessing minimum qualifications for the Prime grade tend to be compact and blocky and tend to have plump, full legs; wide, thick backs; thick, full, smooth shoulders; and short, thick necks.

Evidences of quality vary markedly with changes in maturity. Carcasses from young lambs that have red, narrow rib bones; red, moist, porous break joints; and a light pink color of inside flank muscles have a moderate amount of feathering between the ribs, a modest quantity of fat streaking in the inside flank muscles, and a small amount of overflow fat over the inside of the ribs adjacent to the backbone. The exterior finish is firm, and the flanks are full and firm.

Carcasses from more mature lambs that have slightly wide, slightly red rib bones; slightly red but rather dry and hard break joints; and a dark pink color of inside flank muscles have moderately abundant and rather extensive feathering between the ribs, slightly abundant fat streaking in the inside flank muscles, and a moderate amount of overflow fat over the inside of the ribs adjacent to the backbone. The external finish is very firm, and the flanks are very full and firm.

To qualify for the Prime grade a carcass must possess the minimum qualifications for quality regardless of the extent that its conformation may exceed the minimum requirements for Prime. However, a development of quality which is superior to that specified as minimum for the Prime grade may compensate, on an equal basis and without limit, for a development of conformation which is inferior to that specified for Prime as indicated in the following example: A carcass which has evidences of quality equivalent to the mid-point of the Prime grade may have conformation equivalent to the mid-point of the Choice grade and remain eligible for Prime.

CHOICE

Carcasses possessing minimum qualifications for the Choice grade are slightly compact with slightly plump, full legs; slightly

wide, thick backs; slightly wide, full shoulders; and slightly short, thick necks.

Evidences of quality vary considerably with changes in maturity. Carcasses from young lambs that have red, narrow rib bones; red, moist, porous break joints; and a slightly dark pink color of inside flank muscles have a small amount of feathering between the ribs, a slight quantity of fat streaking in the inside flank muscles, and a slight amount of overflow fat over the inside of the ribs adjacent to the backbone. The exterior finish is moderately firm, and the flanks are slightly full and firm.

Carcasses from more mature lambs that have slightly wide, slightly red rib bones; slightly red but rather dry and hard break joints; and a light red color of inside flank muscles have a moderate amount of feathering between the ribs, a small quantity of fat streaking in the inside flank muscles, and a small amount of overflow fat over the inside of the ribs adjacent to the backbone. The external finish is firm, and the flanks are moderately full and firm.

A carcass which has conformation equivalent to at least the mid-point of the Choice grade may have evidences of quality equivalent to the minimum for the upper third of the Good grade and remain eligible for Choice. Also, a development of quality which is superior to that specified as minimum for the Choice grade may compensate, on an equal basis and without limit, for a development of conformation which is inferior to that specified for Choice as indicated in the following example: A carcass which has evidences of quality equivalent to the mid-point of the Choice grade may have conformation equivalent to the mid-point of the Good grade and remain eligible for Choice.

GOOD

Carcasses possessing minimum qualifications for the Good grade are moderately rangy and slightly angular with slightly thin, tapering legs; slightly narrow, thin backs and shoulders; and moderately long, thin necks.

Evidences of quality vary moderately with changes in maturity. Carcasses from young lambs that have red, narrow rib bones; red, moist, porous break joints; and a dark pink color of inside flank muscles have traces of feathering between the ribs but practically no fat streaking in the inside flank muscles and practically no overflow fat over the inside of the ribs adjacent to the backbone. The exterior finish is slightly firm, and the flanks are slightly thin and soft.

Carcasses from more mature lambs that have slightly wide, slightly red rib bones; slightly red but rather dry and hard break joints; and a slightly dark red color of inside flank muscles have a slight amount of feathering between the ribs, traces of fat streaking in the inside flank muscles and traces of overflow fat over the inside of the ribs adjacent to the backbone. The external finish is moderately firm, and the flanks are slightly full and firm.

A carcass which has conformation equivalent to at least the mid-point of the Good grade may have evidences of quality equivalent to the minimum for the upper third of the Utility grade and remain eligible for Good. Also, a development of quality which is superior to that specified as minimum for the Good grade may compensate, without limit, for a development of conformation which is inferior to that specified for Good on the basis of a half grade of

superior quality for a third of a grade of deficient conformation as indicated in the following example: A carcass which has evidences of quality equivalent to the mid-point of the Good grade may have conformation equivalent to the minimum for the upper third of the Utility grade and remain eligible for Good.

UTILITY

Carcasses possessing minimum qualifications for the Utility grade are very rangy and angular with thin, slightly concave legs; very narrow, sunken backs; narrow, sharp shoulders; and long, thin necks. Hips and shoulders joints are plainly visible.

Although evidences of quality vary slightly with changes in maturity the differences are so small as to make their separate descriptions impractical. There is practically no feathering between the ribs, no fat streaking in the inside flank muscles, and no overflow fat over the inside of the ribs adjacent to the backbone. The lean in the inside flank muscles and between the ribs is dark red in color. External finish is soft, and the flanks are soft and slightly watery.

A carcass which has conformation equivalent to at least the mid-point of the Utility grade may have evidences of quality equivalent to the minimum for the upper third of the Cull grade and remain eligible for Utility. Also, a development of quality which is superior to that specified as minimum for the Utility grade may compensate, without limit, for a development of conformation which is inferior to that specified for Utility on the basis of a half grade of superior quality for a third of a grade of deficient conformation as indicated in the following example: A carcass which has evidences of quality equivalent to the mid-point of the Utility grade may have conformation equivalent to the minimum for the upper third of the Cull grade and remain eligible for Utility.

CULL

Typical Cull grade carcasses are extremely rangy and angular and extremely thin-fleshed throughout. Legs are extremely thin and concave, backs are extremely sunken and thin, shoulders are very thin and sharp, and necks are extremely thin. Hips and shoulder joints, as well as ribs and bones of the spinal column, are clearly outlined, and the flesh is soft and watery and very dark red in color.

SPECIFICATIONS FOR OFFICIAL UNITED STATES STANDARDS FOR GRADES OF YEARLING MUTTON CARCASSES

PRIME

Carcasses possessing minimum qualifications for the Prime grade are compact and blocky and have plump, full legs; wide, thick backs; wide, full, smooth shoulders; and short, thick necks. They have extensive and abundant feathering between the ribs, moderately abundant streaking of fat in the inside flank muscles, slightly abundant overflow fat over the inside of the ribs adjacent to the backbone, and a light red color of inside flank muscles. The exterior finish is very firm, and the flanks are very full and firm.

To qualify for the Prime grade a carcass must possess the minimum qualifications for quality regardless of the extent that its conformation may exceed the minimum requirements for Prime. However, a development of quality which is superior to that specified as minimum for the Prime grade may compensate, on an equal basis and without limit, for a development of conformation which is inferior to that specified for Prime as indicated in the following example: A carcass which has evidences of quality equivalent to the mid-point of the Prime grade may have conformation equivalent to the mid-point of the Choice grade and remain eligible for Prime.

Carcasses which are otherwise eligible for Prime grade but which have excessive, bunchy, or irregular distribution of external fat or excessive quantities of kidney and pelvic fat are not eligible for Prime.

CHOICE

Carcasses possessing minimum qualifications for the Choice grade are moderately compact with rather short, plump, full legs; moderately wide, thick backs; moderately wide, full shoulders; and rather short, thick necks. They have slightly abundant feathering between the ribs, a modest amount of fat streaking in the inside flank muscles, a modest amount of overflow fat over the inside of the ribs adjacent to the backbone, and a slightly dark red color of inside flank muscles. The exterior finish is firm, and the flanks are moderately full and firm.

A carcass which has conformation equivalent to at least the mid-point of the Choice grade may have evidences of quality equivalent to the minimum for the upper third of the Good grade and remain eligible for Choice. Also, a development of quality which is superior to that specified as minimum for the Choice grade may compensate, on an equal basis and without limit, for a development of conformation which is inferior to that specified for Choice as indicated in the following sample: A carcass which has evidences of quality equivalent to the mid-point of the Choice grade may have conformation equivalent to the mid-point of the Good grade and remain eligible for Choice.

Carcasses which are otherwise eligible for Prime grade but which have excessive, bunchy, or irregular distribution of external fat or excessive quantities of kidney and pelvic fat are included in the Choice grade.

GOOD

Carcasses possessing minimum qualifications for the Good grade are slightly rangy and angular, with slightly thin, tapering legs; slightly narrow, thin backs; and slightly long, thin necks. They have a small amount of feathering between the ribs, a slight amount of fat streaking in the inside flank muscles, a slight amount of overflow fat over the inside of the ribs adjacent to the backbone, and a moderately dark red color of inside flank muscles. The exterior finish is moderately firm, and the flanks are slightly thick and full.

A carcass which has conformation equivalent to at least the mid-point of the Good grade may have evidences of quality equivalent to the minimum for the upper third of the Utility grade and remain eligible for Good. Also, a development of quality which is

superior to that specified as minimum for the Good grade may compensate, without limit, for a development of conformation which is inferior to that specified for Good on the basis of a half grade of superior quality for a third of a grade of deficient conformation as indicated in the following example: A carcass which has evidences of quality equivalent to the mid-point of the Good grade may have conformation equivalent to the minimum for the upper third of the Utility grade and remain eligible for Good.

UTILITY

Carcasses possessing minimum qualifications for the Utility grade are very rangy and angular with thin, slightly concave legs; very narrow, sunken backs; narrow, sharp shoulders; and long, thin necks. Hips and shoulder joints are plainly visible. There is practically no feathering between the ribs, no fat streaking in the inside flank muscles, no overflow fat over the inside of the ribs adjacent to the backbone, and a dark red color of inside flank muscles. The exterior finish is moderately soft, and the flanks are soft and slightly watery.

A carcass which has conformation equivalent to at least the mid-point of the Utility grade may have evidences of quality equivalent to the minimum for the upper third of the Cull grade and remain eligible for Utility. Also, a development of quality which is superior to that specified as minimum for the Utility grade may compensate, without limit, for a development of conformation which is inferior to that specified for Utility on the basis of a half grade of superior quality for a third of a grade of deficient conformation as indicated in the following example: A carcass which has evidences of quality equivalent to the mid-point of the Utility grade may have conformation equivalent to the minimum for the upper third of the Cull grade and remain eligible for Utility.

CULL

Typical Cull grade carcasses are extremely rangy and angular and extremely thin-fleshed throughout. Legs are extremely thin and concave, backs are extremely sunken and thin, shoulders are very thin and sharp, and necks are extremely thin. The hips and shoulder joints, as well as the ribs and the bones of the spinal column, are clearly outlined, and the flesh is soft and watery and very dark red in color.

SPECIFICATIONS FOR OFFICIAL UNITED STATES STANDARDS FOR GRADES OF MUTTON CARCASSES

CHOICE

Carcasses possessing minimum qualifications for the Choice grade are moderately compact with slightly plump, full legs; wide, thick backs; wide, full shoulders; and slightly short, thick necks. They have moderately abundant feathering between the ribs, a moderate amount of fat streaking in the inside flank muscles, a modest amount of overflow fat over the inside of the ribs adjacent to the backbone, and a dark red color of inside flank muscles. The exterior finish is firm, and the flanks are moderately full and firm.

A carcass which has conformation equivalent to at least the mid-point of the Choice grade may have evidences of quality equivalent to the minimum for the upper third of the Good grade and remain eligible for Choice. Also, a development of quality which is superior to that specified as minimum for the Choice grade may compensate, on an equal basis and without limit, for a development of conformation which is inferior to that specified for Choice as indicated in the following example: A carcass which has evidences of quality equivalent to the mid-point of the Choice grade may have conformation equivalent to the mid-point of the Good grade and remain eligible for Choice.

Carcasses which are otherwise eligible for Choice grade but which have excessive, bunchy, or irregular distribution of external fat or excessive quantities of kidney and pelvic fat are not eligible for Choice.

GOOD

Carcasses possessing minimum qualifications for the Good grade are slightly rangy and angular, with slightly thin, tapering legs; slightly wide but slightly thin-fleshed backs and shoulders; and slightly long, thin necks. Hips and shoulder joints are visible. Such carcasses have a modest amount of feathering between the ribs, a slight amount of fat streaking in the inside flank muscles, a slight amount of overflow fat over the inside of the ribs adjacent to the backbone, and a dark red color of inside flank muscles. The exterior finish is moderately firm, and the flanks are slightly thick and full.

A carcass which has conformation equivalent to at least the mid-point of the Good grade may have evidences of quality equivalent to the minimum for the upper third of the Utility grade and remain eligible for Good. Also, a development of quality which is superior to that specified as minimum for the Good grade may compensate, without limit, for a development of conformation which is inferior to that specified for Good on the basis of a half grade of superior quality for a third of a grade of deficient conformation as indicated in the following example: A carcass which has evidences of quality equivalent to the mid-point of the Good grade may have conformation equivalent to the minimum for the upper third of the Utility grade and remain eligible for Good.

Carcasses which are otherwise eligible for Choice grade but which have excessive, bunchy, or irregular distribution of external fat or excessive quantities of kidney and pelvic fat are included in the Good grade.

UTILITY

Carcasses possessing minimum qualifications for the Utility grade are very rangy and angular with thin, slightly concave legs; very narrow, sunken backs; narrow, sharp shoulders; and long, thin necks. Hips and shoulder joints are plainly visible. There are traces of feathering between the ribs, but practically no fat streaking in the inside flank muscles, practically no overflow fat over the inside of the ribs adjacent to the backbone, and a very dark red color of inside flank muscles. The exterior finish is slightly soft, and the flanks are soft and slightly watery.

A carcass which has conformation equivalent to at least the mid-point of the Utility grade may have evidences of quality equivalent to the minimum for the upper third of the Cull grade and remain eligible for Utility. Also, a development of quality which is superior to that specified as minimum for the Utility grade may compensate, without limit, for a development of conformation which is inferior to that specified for Utility on the basis of a half grade of superior quality for a third of a grade of deficient conformation as indicated in the following example: A carcass which has evidences of quality equivalent to the mid-point of the Utility grade may have conformation equivalent to the minimum for the upper third of the Cull grade and remain eligible for Utility.

CULL

Typical Cull grade carcasses are extremely rangy and angular and extremely thin-fleshed throughout. Legs are extremely thin and concave, backs are extremely sunken and thin, shoulders are very thin and sharp, and necks are extremely thin. The hips and shoulder joints, as well as the ribs and the bones of the spinal column, are clearly outlined, and the flesh is soft and watery and very dark red in color.



